Volume Title: Trade and Structural Change in Pacific Asia

Volume Author/Editor: Colin I. Bradford, Jr. and William H. Branson, editors

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-07025-5

Volume URL: http://www.nber.org/books/brad87-1

Publication Date: 1987

Chapter Title: Trade Patterns and Trends of Thailand

Chapter Author: Juanjai Ajanant

Chapter URL: http://www.nber.org/chapters/c6932

Chapter pages in book: (p. 467 - 484)

15 Trade Patterns and Trends of Thailand

Juanjai Ajanant

15.1 Introduction

Thailand's recent growth performance has been impressive, with GDP growth rate averaging almost 8% per annum over the previous decade. The high growth rate occurred in all sectors of the economy. Exports have grown at an average annual growth rate of over 14%, and per capita income in current value has increased from U.S. $110 in 1960 to U.S. $670 in 1980. Primary exports, which used to be 85% of total exports, declined to 70%, reflecting the emergence of manufactured exports. At present 30% of total export value comes from manufactured exports. This paper will examine (*a*) factors that contributed to the growth of the economy, based on the record of the previous two decades; (*b*) prevailing factors that will contribute to the growth of the economy and exports in the coming years; and (*c*) the notions of export-led growth and growth-led exports.

15.2 Factors Contributing to Growth

From 1960 to 1976 Thailand implemented an import substitution industrialization policy. Despite the pros and cons of this policy, Thailand is said to be a successful case. The economy was able to grow rapidly during implementation of the first three national plans (1960–76). The success of the economy can be attributed to several factors, but it suffices to mention only four important ones: (*a*) the availability of

Juanjai Ajanant is assistant professor of economics at Chulalongkorn University, Bangkok, Thailand.

Comments by Dr. David Grove and Professors Branson and Baldwin are deeply appreciated by the author.

cheap, resource-based raw materials, (*b*) the supply of low-wage unskilled labor, (*c*) tax exemption on capital machinery imported into the country, and (*d*) the realization of managerial acumen.

During the first decade of development (1961–70) the policy toward the industrial sector was actually biased toward raw material processing industries (e.g., food, rubber, and basic metals). With an area of 540,000 km^2 and long coastal lines encompassing 24 provinces, Thailand is quite rich in terms of resources. Tropical crops can be grown in most parts of the country; marine life can be found in abundance within the Gulf of Thailand; mineral ores are found in the southern isthmus. Most of these resources were exported in unprocessed form. Because of the abundance of cheap raw materials, the processing industries dominated the industrial scene before the textile industry began to emerge as a major industry.

Today, Thai industrial workers must be paid their legal minimum wage. The early years of industrialization saw a different labor market situation. Then, the labor market was one of free competition in which the wage rate was determined by market forces. As the economy had surplus labor, the wage bill was relatively small in the total cost of production. The low wage attracted many foreign investors, especially the Japanese. The textile industry, which was founded in Thailand through the Thai-Japanese joint ventures, flourished because of the low wage bill. Of course, the low wage signifies that labor is unskilled and of low productivity. This is not at all surprising, since most workers had never experienced modern working conditions before; high absenteeism was noted. Over the years the socialization process has been smooth and workers have acclimatized to the routine. The enactment of the minimum wage law in 1973 has surely lifted the standard of living of laborers, but the prevailing wage may not reflect the marginal product of labor. In sum, the low wage was a significant variable for industrial growth, which in turn led to the growth of the economy.

As a labor-surplus economy à la Lewis, Thailand would be better off with labor-intensive techniques. The government, mainly through the Investment Promotion Act of 1960, supported industry by exempting taxes on capital machinery imported into the kingdom. Thai industrialists were encouraged to employ modern machines to produce consumer goods. Had tariffs been imposed on capital machinery or the tax exemption not been applied, the growth of Thai industries undoubtedly would have been retarded. Therefore, the tax exemption on capital machinery facilitated industrialization even though it may have biased it toward greater capital intensity.

It would be misleading to conclude that the growth rate was due only to the above factors without paying tribute to entrepreneurial and management skills. Before 1960 the only group of people with some business

experience were the Chinese or people of Chinese origin. These people were, however, denied the opportunity to demonstrate their skills by means of various restrictions. The government even passed a law reserving certain occupations for the indigenous Thais. The fear of Chinese domination in business began to subside in the 1960s, enabling this group to make its impact by investing and organizing business on a large scale. Most of the important branches of Thai business are today owned or managed by Thais of Chinese origin.

15.3 Growth and Trade

Despite the bias toward the industrial sector, the other sectors of the economy did not perform poorly. We examine here three broad sectors: agriculture, minerals, and manufactures. The average annual growth rate of agriculture for the period 1960–80 was 5.1% (see table 15.1). This growth rate is small when compared with those of the other two sectors. But it should be emphasized that the value of agricultural production was substantially larger than those of the other sectors, and thus a low percentage growth still represents substantial incremental agricultural output.

The sporadic pattern of growth of the mining sector is due to the importance of tin production. The cyclical movement of the sector is determined largely by the fluctuations of world tin prices. Hence, its growth rate, which was at 16.9%, dropped sharply to −0.77% during the third plan but, with the commodity boom in 1974, bounced back to 11.6% in the fourth plan period.

The manufacturing sector enjoyed the highest growth rate during the period 1960–80. The overall growth rate for the four plans stood at

Table 15.1 **GDP and Growth of Production by Sectors** (in billions of baht and percentages)

Sector	1961–66	1967–71	1972–76	1977–80	1960–80
Agriculture	34.33	45.89	58.22	71.70	
	(6.26)	(5.88)	(6.74)	(3.53)	(5.1)
Mining	1.36	2.54	2.78	4.38	
	(16.9)	(5.35)	(−0.77)	(11.66)	(7.76)
Manufacturing	12.21	21.49	34.45	56.90	
	(11.42)	(9.17)	(10.49)	(8.64)	(10.59)

Source: Calculated from the National Income Accounts.

Notes: GDP value has been calculated using the simple average; GDP is at 1972 prices. Growth is expressed as average annual growth for the period in question. 1961–66 = first national plan; 1967–71 = second national plan; 1972–76 = third national plan; 1977–80 = fourth national plan.

10.59%, with relatively even growth rates per plan period compared with mining.

Looking at the import side of the foreign sector, Thailand's pursuit of import substitution of finished products has resulted in a heavy concentration in a few categories of imports, notably raw materials (including oil), capital machinery, and chemicals. In table 15.2 we show the structure of imports classified according to one-digit SITC codes for 1960–80, along with the percentage shares by commodities. The combined share of chemicals, manufactured goods, and machinery (SITC 5, 6, and 7) was almost 69% of the total import value in 1960. The share dropped to roughly 50% by 1980. The share of manufactured goods imports (SITC 6) shows a gradual declining trend from 34% in 1960 to 15% in 1980. Machinery imports dropped from 35% to 23% between 1975 and 1980. The chief reason why the share of these com-

Table 15.2 **Value of Imports of Thailand by Commodity Groups**

SITC Categories	1960	1965	1970	1975	1980
	In Millions of Baht				
All commodities	9,622	16,185	27,009	66,835	188,686
0. Food and live animals	784	891	1,091	1,951	5,763
1. Beverages & tobacco	108	201	303	753	1,518
2. Crude materials	143	477	1,400	3,977	10,755
3. Mineral fuels & lubricants	1,025	1,364	2,329	14,233	58,733
4. Animal & vegetable oils & fats	20	33	35	108	1,458
5. Chemicals	974	1,674	3,505	9,122	22,352
6. Manufactured goods	3,289	5,016	6,458	10,560	28,152
7. Machinery & transport equipment	2,390	4,924	9,536	23,125	43,102
8. Miscellaneous manufactured goods	522	923	1,350	2,145	10,959
9. Misc. transactions & commodities (incl. gold)	367	682	1,002	860	5,894
	Percentage of Total				
All commodities	100.00	100.00	100.00	100.00	100.00
0. Food and live animals	8.15	5.51	4.02	2.92	3.05
1. Beverages & tobacco	1.12	1.24	1.12	1.13	0.81
2. Crude materials	1.49	2.95	5.18	5.95	5.70
3. Mineral fuels & lubricants	10.65	8.43	8.62	21.30	31.13
4. Animal & vegetable oils & fats	0.21	0.20	0.13	0.16	0.77
5. Chemicals	10.12	10.34	12.98	13.65	11.85
6. Manufactured goods	34.18	30.99	23.91	15.80	14.92
7. Machinery & transport equipment	24.84	30.42	35.31	34.60	22.84
8. Miscellaneous manufactured goods	5.43	5.70	5.00	3.21	5.81
9. Misc. transactions & commodities (incl. gold)	3.81	4.21	3.71	1.29	3.12

Source: Bank of Thailand, *Monthly Bulletin,* various issues.

modity categories dropped is that the percentage share of fuel imports jumped more than two times in 1975 and rose to 31.13% in 1980. Excluding fuels and lubricants, the import share of SITC 5, 6, and 7 would have actually increased.

The growth rate of total imports was 15.34% for all commodities for the period 1960–80 (table 15.3). Fuels and lubricants (SITC 3) had a 56.4% and 41.3% growth for the third and fourth plans. Chemicals (SITC 5) had a rapid growth during the same period but averaged 17.71% for the twenty-year span. Crude materials (SITC 2) had a rapid growth in the first two plans but began to decline in the early 1970s.

Table 15.4 illustrates the sources of imports from selected countries. Japan leads the group as the single largest supplier of all commodities to Thailand over the twenty-year period. The United States ranked second during the same period. Other countries tend to have a small share in total imports. In 1960 and 1965 Saudi Arabia had 0.26% and 0.07% shares respectively. With the oil price hikes during the 1970s the import share of this country went up by leaps and bounds to become the third largest supplier to Thailand by the mid-1970s.

As for the type of product supplies by Thai trading partners, table 15.4 shows that the United States was the leading supplier of food, beverages, and tobacco (SITC 0 and 1). The United States also held the top spot as far as imports of crude materials and oils and fats (SITC 2 and 4) were concerned. Saudi Arabia, as mentioned earlier, was the main supplier of crude oil (SITC 3). For chemicals and machinery and transport equipment (SITC 5 and 7) Japan and the United States were the main suppliers. In the early part of the 1960s the United States was

Table 15.3 **Average Annual Growth Rates of Imports of Thailand by Commodity Groups** (percentages)

SITC Categories	1961–66	1967–71	1972–76	1977–80	1960–80 Average
All commodities	12.32	5.03	24.33	26.86	15.34
0. Food and live animals	5.23	−0.22	17.57	13.96	12.55
1. Beverages & tobacco	9.62	5.77	7.65	32.53	8.95
2. Crude materials	23.47	33.38	32.75	16.94	25.89
3. Mineral fuels & lubricants	10.79	13.11	56.42	41.31	22.07
4. Animal & vegetable oils & fats	17.28	0.23	31.76	71.21	19.89
5. Chemicals	14.66	9.40	20.87	21.17	17.71
6. Manufactured goods	8.02	−1.37	14.96	24.14	10.17
7. Machinery & transport equipment	17.95	3.78	23.26	15.16	15.39
8. Miscellaneous manufactured goods	14.39	3.63	8.81	44.53	14.22
9. Misc. transactions & commodities (incl. gold)	5.51	7.71	6.68	50.43	11.01

Source: Calculated from Bank of Thailand's statistics.

Table 15.4 **Sources of Imports of Thailand for Selected Commodity Groups** (percentages)

	1960	1965	1971	1975	1980
	All Commodities				
World	100.00	100.00	100.00	100.00	100.00
Japan	25.24	32.53	37.70	41.55	20.65
United States	18.16	17.30	14.24	14.37	16.65
Fed. Rep. Germany	10.57	9.07	7.75	5.21	4.25
United Kingdom	10.53	9.12	7.68	4.53	2.60
Australia	1.10	2.04	3.23	2.30	1.83
Saudi Arabia	0.26	0.07	2.81	8.99	9.87
Italy	1.19	2.37	1.60	1.83	1.38
Netherlands	4.32	3.46	1.18	1.02	2.42
Hong Kong	6.48	2.86	1.17	0.96	0.93
Rest of the world	22.16	21.18	22.64	29.22	39.44
	SITC 0 + 1				
World	100.00	100.00	100.00	100.00	100.00
Japan	6.02	1.35	3.06	4.29	3.07
United States	13.43	25.11	40.61	41.02	24.36
Fed. Rep. Germany	0.15	0.86	1.22	1.30	3.70
United Kingdom	3.45	3.64	5.11	4.52	5.38
Australia	5.85	8.57	12.91	13.80	4.50
Saudi Arabia	—	—	—	—	—
Italy	5.95	—	0.17	0.16	0.15
Netherlands	27.61	31.49	10.88	4.57	3.40
Hong Kong	17.38	0.56	0.64	0.33	0.44
Rest of the world	10.15	28.42	25.40	30.00	54.99
	SITC 2 + 4				
World	100.00	100.00	100.00	100.00	100.00
Japan	6.99	9.27	12.67	11.78	6.11
United States	33.75	46.90	37.69	29.34	26.13
Fed. Rep. Germany	1.87	0.67	4.44	1.76	2.24
United Kingdom	11.41	4.42	4.72	1.61	0.88
Australia	7.91	2.18	2.06	4.90	3.03
Saudi Arabia	—	—	—	—	—
Italy	0.14	0.74	0.39	0.16	3.12
Netherlands	0.88	—	0.57	0.85	0.25
Hong Kong	18.37	1.10	1.84	3.32	3.31
Rest of the world	18.68	34.71	35.63	46.28	54.93
	SITC 3				
World	100.00	100.00	100.00	100.00	100.00
Japan	0.74	3.80	2.57	1.18	0.35
United States	6.45	8.96	4.63	0.96	0.78
Fed. Rep. Germany	0.10	0.28	0.18	0.04	0.02
United Kingdom	2.45	11.58	1.14	0.08	0.05
Australia	—	—	—	—	0.76
Saudi Arabia	2.57	0.66	26.90	41.66	32.38

Table 15.4 (continued)

	1960	1965	1971	1975	1980
Italy	—	—	—	—	1.06
Netherlands	4.65	0.88	0.95	0.25	0.38
Hong Kong	0.22	—	—	—	—
Rest of the world	82.82	73.84	63.62	55.83	64.22
			SITC 5 + 7		
World	100.00	100.00	100.00	100.00	100.00
Japan	16.92	33.26	46.19	44.08	35.76
United States	26.01	19.67	12.28	16.89	25.51
Fed. Rep. Germany	18.68	15.80	11.51	8.45	8.75
United Kingdom	15.48	12.10	10.34	6.79	4.76
Australia	0.44	1.52	2.08	1.38	0.85
Saudi Arabia	—	—	—	—	—
Italy	2.25	4.01	2.45	3.19	1.88
Netherlands	3.35	2.17	1.37	1.08	1.89
Hong Kong	2.62	1.08	0.64	0.43	0.52
Rest of the world	14.24	10.38	13.13	17.70	20.07
			SITC 6 + 8		
World	100.00	100.00	100.00	100.00	100.00
Japan	45.16	49.65	53.74	49.44	40.70
United States	11.68	8.51	7.73	10.04	8.73
Fed. Rep. Germany	6.33	6.49	5.16	4.60	3.17
United Kingdom	8.22	7.03	6.58	4.84	2.69
Australia	0.24	1.72	4.17	4.02	5.27
Saudi Arabia	—	—	—	—	—
Italy	0.97	1.43	1.24	1.41	0.91
Netherlands	1.00	0.58	0.52	0.99	0.60
Hong Kong	10.77	6.33	2.47	2.78	2.82
Rest of the world	15.63	18.25	18.37	21.89	35.11

Source: United Nations, *Commodity Trade Statistics.*

the most important, with a 26.01% share, but Japan surpassed the United States by the mid-1960s and has held this position ever since. The preeminence of Japan is also exhibited in the imports of manufactured products and other manufactured goods (SITC 6 and 8). During 1960–80 Japan had about a 45% share in any given year, with the United States remaining second at some distance.

Between 1960 and 1965 Thai exports consisted mainly of food and crude materials (SITC 0 and 2) (see table 15.5). In 1960, for example, these two classes of products combined to produce 95% of the total export value. The share of crude materials (SITC 2) began to plummet by the early 1970s; this was partly offset by an increase in manufactured exports (SITC 6) at the same time. In 1975 the export of food (SITC

Table 15.5 Value of Exports of Thailand by Commodity Groups

SITC Categories	1960	1965	1970	1975	1980
	In Millions of Baht				
All commodities	8,614	12,980	14,722	45,007	133,197
0. Food and live animals	3,912	6,786	6,957	26,599	59,338
1. Beverages & tobacco	25	92	206	579	1,393
2. Crude materials	4,303	4,966	4,262	6,804	19,095
3. Mineral fuels & lubricants	—	46	45	249	86
4. Animal & vegetable oils & fats	2	7	14	43	222
5. Chemicals	8	15	33	243	936
6. Manufactured goods	96	599	2,188	6,419	19,474
7. Machinery & transport equipment	1	10	15	573	7,618
8. Miscellaneous manufactured goods	14	27	59	1,582	8,467
9. Miscellaneous transactions & commodities	61	133	471	983	3,777
Reexports	192	299	522	933	2,791
	Percentage of Total				
All commodities	100.00	100.00	100.00	100.00	100.00
0. Food and live animals	45.41	52.28	47.26	59.10	44.55
1. Beverages & tobacco	0.29	0.71	1.40	1.29	1.05
2. Crude materials	49.95	38.26	18.95	15.12	14.34
3. Mineral fuels & lubricants	—	0.35	0.31	0.54	0.07
4. Animal & vegetable oils & fats	0.23	0.05	0.10	0.10	0.17
5. Chemicals	0.09	0.12	0.22	0.54	0.70
6. Manufactured goods	1.11	4.62	14.86	14.26	22.13
7. Machinery & transport equipment	0.01	0.08	0.10	1.27	5.72
8. Miscellaneous manufactured goods	0.16	0.21	0.04	3.52	6.36
9. Miscellaneous transactions & commodities	0.71	1.03	3.20	2.18	1.84
Reexports	2.23	2.30	3.54	2.07	2.10

Source: Bank of Thailand, *Monthly Bulletin,* various issues.

0) recorded the highest value because of the commodity boom in the preceding year. Crude materials and manufactured products (SITC 2 and 6) represented 30% of the total export value during the early 1970s. It therefore can be stated that for the period 1960–75 food, crude materials, and manufactured goods were the main exports. By 1980 the exports of food items had declined, but the exports of manufactured products rose beyond the 20% level for the first time.

Table 15.6 illustrates the average annual growth of exports of Thailand. When we compare the figures of this table with table 15.3, it can be concluded that the overall export value grew slightly more slowly than the overall import value. The only exception is the period of 1972–76, when the growth rate of exports was higher than that of imports. High-growth products can be found in chemicals, manufactured products, machinery and transport equipment, and miscellaneous manufactured products (SITC 5–8).

Table 15.6 **Average Annual Growth Rates of Exports of Thailand by Commodity Groups** (percentages)

SITC Categories	1961–66	1967–71	1972–76	1977–80	1960–80 Average
All commodities	8.61	4.82	26.15	23.90	14.55
0. Food and live animals	8.86	1.36	34.55	14.74	14.43
1. Beverages & tobacco	47.65	9.96	26.90	13.71	23.08
2. Crude materials	3.55	6.66	12.35	22.32	7.53
3. Mineral fuels & lubricants	361.96	22.39	−19.13	68.76	37.07
4. Animal & vegetable oils & fats	−6.18	88.29	37.27	79.25	15.77
5. Chemicals	10.90	30.82	34.35	47.99	29.26
6. Manufactured goods	57.69	5.74	22.97	35.02	32.50
7. Machinery & transport equipment	65.87	26.86	135.56	62.51	54.34
8. Miscellaneous manufactured goods	7.60	32.23	56.78	45.53	41.06
9. Miscellaneous transactions & commodities	11.98	49.92	−3.19	36.20	23.44
Reexports	2.88	7.13	−8.37	45.73	11.64

Source: Calculated from Bank of Thailand's statistics.

Table 15.7 shows the direction of exports. During the 1970s Japan and the United States bought about 35% of Thai exports. The Netherlands ranked second, slightly ahead of Japan in 1980. This is expected since the Netherlands alone imported one-half of Thai tapioca products. In terms of product classification, Thailand exported food, beverages, and tobacco (SITC 0 and 1) chiefly to Japan and the Netherlands. Japan was the largest buyer of commodities, but the Netherlands concentrated on one single product (tapioca). Within the categories of crude materials and oils and fats (SITC 2 and 4), Japan was the most important buyer. Japan's imports consisted of rubber sheet, block rubber, and unwrought tin metal. There is no clear-cut pattern for mineral fuels and lubricants (SITC 3). The export pattern for chemicals and machinery and transport equipment was unsettled before 1975. From that year on, Singapore was the largest purchaser. The role of Singapore must be interpreted with some caution. Since Singapore is an entrepôt, she acts as an intermediary for countries which have no direct trade relations with Thailand, particularly the socialist countries in Indochina. Thailand exported a substantial proportion of manufactured products (SITC 6 and 8) to the United States, Japan, and the Netherlands. Among these are textile yarns, garments, and canned food (Ajanant 1984).

Thus far, the supply side of production and trade has been emphasized. The demand side of trade was also important to the growth of the Thai economy. A recent World Bank report (1982) which focused on manufactures found that domestic demand was the primary source of growth in manufacturing output throughout the past decade in Thailand. Import substitution was also important in the period 1966–72 and

Table 15.7 **Direction of Exports of Thailand for Selected Commodity Groups** (percentages)

	1960	1965	1971	1975	1980
	All Commodities				
World	100.00	100.00	100.00	100.00	100.00
Japan	16.95	19.64	25.30	26.04	15.31
United States	5.37	5.28	12.86	9.92	12.81
Netherlands	3.04	3.53	8.25	9.56	13.51
Singapore	—	8.02	7.03	8.24	7.36
Hong Kong	13.92	9.74	6.77	12.71	4.96
Malaysia	0.25	10.25	3.93	4.29	4.50
Fed. Rep. Germany	5.69	4.86	3.80	2.32	4.20
United Kingdom	4.51	2.07	2.45	1.05	1.89
Rest of the world	50.27	39.31	29.60	25.87	35.46
	SITC 0 + 1				
World	100.00	100.00	100.00	100.00	100.00
Japan	10.16	15.14	22.44	18.69	9.64
United States	3.87	3.29	3.49	5.93	4.90
Netherlands	2.34	3.29	10.14	14.24	17.41
Singapore	—	9.67	10.23	9.60	5.88
Hong Kong	0.01	12.00	11.18	7.00	4.48
Malaysia	0.00	12.18	5.25	5.16	5.72
Fed. Rep. Germany	3.52	4.44	2.31	1.41	3.04
United Kingdom	1.61	0.83	1.32	0.42	0.91
Rest of the world	78.49	39.06	33.63	27.55	48.04
	SITC 2 + 4				
World	100.00	100.00	100.00	100.00	100.00
Japan	33.83	25.32	41.24	38.16	47.80
United States	6.72	9.79	9.06	10.47	15.00
Netherlands	4.87	4.84	1.98	2.97	6.58
Singapore	—	1.36	4.29	8.78	7.89
Hong Kong	3.92	2.30	1.58	2.14	1.63
Malaysia	5.45	3.50	4.08	6.17	4.44
Fed. Rep. Germany	10.71	6.64	7.40	3.23	4.30
United Kingdom	10.61	4.58	4.35	1.49	0.48
Rest of the world	23.89	41.68	26.02	26.58	11.89
	SITC 3				
World	100.00	100.00	100.00	100.00	100.00
Japan	—	9.99	—	—	7.53
United States	—	—	—	—	—
Netherlands	—	—	—	—	—
Singapore	—	54.16	23.79	—	9.01
Hong Kong	—	—	4.70	10.87	6.53
Malaysia	—	35.21	—	—	14.78
Fed. Rep. Germany	—	—	—	—	—
United Kingdom	—	—	—	—	—
Rest of the world	—	0.63	71.51	89.13	62.16

Table 15.7 (continued)

	1960	1965	1971	1975	1980
	SITC 5 + 7				
World	100.00	100.00	100.00	100.00	100.00
Japan	—	—	21.12	13.54	3.28
United States	24.00	—	—	4.94	19.60
Netherlands	—	—	—	0.79	0.39
Singapore	—	—	12.69	34.77	36.77
Hong Kong	25.14	—	3.73	9.87	8.45
Malaysia	43.43	—	8.08	11.51	12.72
Fed. Rep. Germany	—	—	—	2.17	1.33
United Kingdom	—	—	—	—	1.56
Rest of the world	7.43	100.00	54.38	22.42	15.89
	SITC 6 + 8				
World	100.00	100.00	100.00	100.00	100.00
Japan	0.59	1.82	5.55	14.44	10.79
United States	36.79	18.85	49.95	19.13	21.70
Netherlands	—	—	15.95	3.89	15.11
Singapore	—	8.33	2.75	3.51	3.18
Hong Kong	16.66	11.45	2.27	33.78	6.43
Malaysia	11.60	5.19	0.45	0.99	0.99
Fed. Rep. Germany	6.36	2.11	1.89	3.41	6.22
United Kingdom	9.49	10.96	1.85	1.84	4.04
Rest of the world	18.50	41.30	19.35	19.01	31.54

Source: United Nations, *Commodity Trade Statistics.*

before, when a number of consumer goods industries were established in Thailand. These were principally in consumer durables, transport equipment, and the production of some intermediate and final products such as textiles, rubber products, and wood products.

Table 15.8 is reproduced from that World Bank report. Overall, there was no net import substitution during 1972–75; there was even some "negative substitution" in sectors where demand outpaced the growth of domestic capacity and the import share grew. However, exports made an increasing contribution to the growth of output. The beginning of a shift toward greater export orientation is evident in some sectors, including intermediate products such as textiles, rubber products, and wood products.

In the most recent period, 1975–80, export demand has become much more important in its direct contribution to the growth of manufacturing. Import substitution did not contribute to growth during 1975–80. In fact, on the average, there was negative impact. The transport equipment sector did enjoy some net import substitution in this period as higher local content laws began to have an effect. Almost all other

Table 15.8 **Foreign Trade: Sources of Growth of Manufacturing Output** (percentage contribution to increase)

Sector	DE[a]	IS	EX	DE[a]	IS	EX
	1966–72			1972–75		
Processed foods	107.3	0.5	−7.8	89.3	0.6	10.0
Beverages & tobacco	73.6	26.4	−0.1	87.9	0.1	11.9
Construction materials	69.5	19.6	10.9	89.5	0.3	10.2
Intermediate products I	65.8	23.7	10.5	96.3	−2.1	5.8
Intermediate products II	33.6	50.6	15.9	89.7	−9.5	23.6
Consumer nondurables	51.8	35.6	12.6	80.8	14.9	4.3
Consumer durables	31.7	66.7	1.6			
Machinery	48.3	49.0	2.7	107.3	−7.7	0.4
Transport equipment	24.7	75.2	0.1			
Total	64.1	29.4	6.5	91.0	0.5	8.5
	1975–78			1977–80		
Processed foods	46.9	−4.6	57.7	72.3	−7.5	35.2
Beverages & tobacco	101.6	−219.9	0.6	110.6	−11.2	0.5
Construction materials	103.6	−1.0	−2.6	130.1	−28.6	−1.5
Textiles & clothing	65.8	3.4	30.8	74.5	10.4	15.0
Leather & leather products	−420.2	−18.5	538.6	51.6	−3.0	51.4
Wood & wood products	107.2	−16.0	8.8	96.8	−1.2	4.4
Paper & paper products	102.6	−4.0	1.5	70.6	2.7	26.7
Chemicals & petroleum	130.2	−29.5	−0.6	72.1	−10.7	38.6
Rubber & rubber products	31.8	16.4	51.7	−11.8	−9.2	121.0
Metals & metal products	64.1	−1.0	36.9	70.3	−3.6	33.3
Machinery	60.8	4.4	34.8	81.8	−60.5	78.8
Transport equipment	81.1	18.2	0.5	81.9	16.1	1.9
Other	89.0	−33.5	44.5	64.7	13.9	21.4
Total	79.5	−7.7	28.2	74.3	−7.0	32.2

Source: World Bank 1982.

Note: DE = domestic demand effect; IS = import substitution; EX = export demand.

[a]Domestic demand effects greater than 100 indicate that domestic demand grew faster than production and either the import share increased (negative import substitution) or surpluses available for export were reduced (negative export expansion) or both to meet the higher domestic demand in excess of domestic supply capacity.

sectors continued to show net negative impact from import substitution. Since 1980, exports have become critical to the Thai economy.

15.4 The Future

The recession in the 1980s has brought numerous problems for Thai exports. First, terms of trade have turned against leading exports such as rubber, tin metal, and sugar. Second, in the attempt to restructure their economies in general and some industries in particular, indus-

trialized countries have resorted to restrictive trade and nontrade measures. Though these measures were nondiscriminatory, Thai products felt the effect. The resultant trade deficit of 89,000 million baht in 1983 is a testimony to this struggle.

The degree to which the Thai economy can rebound and continue to grow at the fast pace achieved during the previous decade will depend to a large extent on the degree to which the world economy recovers. Thailand cannot grow without the external demand from the industrialized world. Given the world economy, the following factors should indicate the possible outcome. These are (*a*) the wage rate, (*b*) the new breed of entrepreneurs, (*c*) energy, (*d*) foreign debt, and (*e*) government policy.

Though the minimum wage has gradually risen over the past ten years (see table 15.9), the real wage has not kept up with inflation. The CPI increase averaged 11.5 for the period 1977–81; the increase was about 20% for 1979 and 1980. This clearly denotes a fall in real wage in recent years. The wage issue has been accepted by union leaders as a fait accompli. The union leaders accepted the stagnant situation and compromised on a fractional increase in 1983. In order to gain a share in the international market, Thai products must be price-competitive,

Table 15.9 **Minimum Wage** (in baht per day[a])

Year	Bangkok and Surrounding Provinces	Central Plains and Southern Regions	Northern and Northeastern Regions
1973	12	—	—
1974	16	—	—
1975	20	—	—
1976	25	18	16
1977	28	21	19
1978	35	28	25
1979	45	38	35
1980	54	47	44
1981	61[b]	52[c]	52[c]
1982	64[d]	61[e]	52[f]
1983	66[d]	63[e]	56[f]

Source: Labour Department.

[a]20.40 baht equals U.S. $1.00 during the period 1960–80; 23.00 baht equals U.S. $1.00 since July 1981.

[b]Bangkok, Samutprakan, Nonthaburi, Prathumthani, Nakornprathom, Samut-sakorn, Cholbury, Saraburi, Nakornrachasima, Chiangmai, Phuket, Panga, and Ranong.

[c]Provinces other than those mentioned in note b.

[d]Bangkok, Samutprakan, Nonthaburi, Prathumthani, Nakornprathom, Samut-sakorn, Phuket, Panga, and Ranong.

[e]Cholburi, Saraburi, Nakornrachasima, and Chiangmai.

[f]Provinces other than those mentioned in notes d and e.

and the wage rate can be the deciding factor. The Thai wage rate is lower than rates in the newly industrializing countries (NIC). But it is higher than wages paid in the Philippines, Sri Lanka, and Indonesia. Provided the wage restraint can be maintained, Thai labor-intensive products will remain competitive with products of her rivals.

Unlike the 1960s, there is no shortage of qualified people to manage the public and private sectors. There are hundreds of M.B.A.-trained individuals plus a few hundred engineers waiting to be promoted. One stumbling block is the older generation of businessmen. The older generation has not fully realized the potential of these qualified people. They continue to apply their skills to old-fashioned family businesses. The process of accepting the professionals as valuable assets to a firm is beginning, and within five years we shall witness the contribution of a new corps of professionals. Beyond 1990, the prospect is even brighter, because most of the older generation will be reaching retirement age.

The oil shock of the 1970s has left its mark on Thailand. Thailand is sensitive to oil price changes since about one-third of her export earnings went back to the Gulf states as payments for crude oil. At present the rate of crude oil consumption stands at about 200,000 barrels per day. The discovery of crude oil in the northeastern region and natural gas in the Gulf of Thailand will reduce oil imports by one-fifth to one-seventh in two years. There has been a deliberate switching from oil to other sources of energy. The electricity authority of Thailand has used natural gas, lignite, and hydroelectric dams to product electricity in various parts of the country. Looking into the near future, the prospect of reducing dependence on imported oil is promising, though the country will have to import some crude oil well beyond 1990.

At the outset of the last recession many developing countries resorted to debt rescheduling and/or increased indebtedness to stave off short-term economic problems. Thailand, on the other hand, relied more upon fiscal austerity coupled with prudential borrowing. As a result Thailand remains one of the few countries in the world undisturbed by the liquidity problem. There are two basic reasons for this. First, there is a law limiting the government's borrowing so that the debt-service ratio remains within a limit of 9% of exports. The government has not sought fresh loans to roll over the impending debt. It has also searched for cheaper sources of funds. Second, many officials still remember the treaties with the Western nations dating back to 1856 which took away the right to levy import duties over 3% for seventy years. The Ministry of Finance, following the old tradition of the early years, has been adamant and refuses to borrow to buttress the economy. In all likelihood, this trend will continue, and the debt service burden ex-

perienced by other countries and dampening their growth will not be an issue for Thailand.

As we have seen, the government has been active in promoting industries through granting incentives. The government has drawn up and implemented policy measures to encourage industrial restructuring and agricultural development. One hard fact is that increased production in the last decade hinged upon the expansion of cultivated areas. Thai agricultural production, however, remains the most primitive among countries of the region. Fertilizer application per hectare is probably the lowest among grain-exporting countries. Furthermore, farm mechanization is not widespread. The acreage expansion has reached its ecological limits. There is no marginal land which the farmer can use except by encroaching upon the dwindling forested land. The forested area has shrunk so much that some parts of the country may soon become deserts. A recent Food and Agriculture Organization report (1984) states that Thailand is losing her forests at a rate of 16% of the estimated forested land per annum. Only Indonesia loses her forested land faster than Thailand. The government has reacted by stopping logging in several areas. In addition a 1% export tariff is placed on all wood products exported, and a ban has been placed on the export of all unprocessed woods. Farmers are encouraged to stop slash-and-burn farming and to apply new techniques of farming, some of which are the use of chemical fertilizers, pesticides, herbicides, and high-yield seeds. The real incentive in agriculture can be found in economic measures. The government has introduced several measures to move the local markets closer to the market signals. It has previously kept the domestic price below the world market price through intervention. Recent trends indicate that the market mechanism is being allowed to replace the interventionist measures. As long as agricultural policy follows this line of thinking, agriculture will continue to be a dominant sector for several decades.

On industrial policy, the government has gradually initiated measures to liberalize trade. For example, there is an ongoing industrial restructuring program to increase the efficiency of industries through reducing tariff protection, developing the financial market, streamlining the export procedure, and so on. The transition from a restrictive trade regime to a more outward-oriented type may take three to four years to accomplish. By then it is envisaged that Thailand can make a bid for NIC status.

15.5 Export-Led Growth or Growth-Led Exports

This retrospective examination of Thai economic performance in the last two decades provides evidence both that exports led to growth

and that growth contributed to exports. This paper argues that the notions are two sides of the same coin in the context of Thailand.

In the early 1960s Thailand had a savings gap which was filled by foreign savings. Later in the decade increases in investment were financed largely with increases in domestic savings. Nevertheless, the savings gap was a binding constraint during the last twenty years, because domestic savings were insufficient to finance investment, despite their increase, and were supplemented by foreign funds (table 15.10). Investment expenditure depends then on the balance-of-payments position as well as the savings propensity. As a leading rice exporter to the world, the economy can rely on the earnings of this staple crop, which contributes about one-eighth to one-tenth of the total export revenue in any given year. Thus, the economy can save out of the export earnings. This type of saving has been advanced by Maizels (1968) as a contributor to the economic growth of Malaysia. Therefore, if export earnings are up, the investment program can be funded from that source. In a recent work by Ajanant, Chunanuntathum, and Meenaphant (1984) it was found from an analysis of domestic resource costs that export sectors can earn the foreign exchange necessary for such an investment program. Without the exports the economy cannot mobilize the investment funds, and it cannot grow as rapidly as it has been. By the same token, it can be equally stated that a shortfall of export earnings represents a major setback to economic growth. The recent shortfall of export earnings in 1983 has presented the government with economic problems.

While the above argues for the export-led growth in a static fashion, akin to the Harrod-Domar growth theorem, the exports of the country can also be viewed as the direct result of the growth process. this aspect is interesting since it posits that the growth of GDP generates exports. One way to examine this process is through intersectoral investigation. When the manufacturing sector was promoted by many

Table 15.10 **Investment and Saving Ratios**

Year	I/Y	S_d/Y	S_f/Y
1960	0.1569	0.1153	0.0413
1965	0.2018	0.1980	0.0037
1970	0.2462	0.2101	0.0361
1975	0.2555	0.2136	0.0413
1980	0.2705	0.2057	0.0647

Source: National Income Accounts.

Note: I = gross domestic investment (1972 prices). Y = GDP (1972 prices). S_d = gross domestic saving (1972 prices). S_f = gross foreign saving (1972 prices).

incentives and privileges in the early 1960s, the output of industry was far below its potential. This implies an economic loss to society apart from the usual deadweight loss. The strength of the whole economy rested on the growth of the traditional sectors, agriculture and minerals. The products of the two traditional sectors not only generate export revenue earnings but are used in the processing industries. Thus, while the manufacturing sector was developing, the nourishment came from the other sectors. Finally, when the manufacturing sector became mature, it could export to the world market. The export possibilities of the manufacturing sector, given demand conditions, depended largely on the revenue generated by the two traditional sectors. This type of argument, however, cannot be generalized to cover every economy. Thailand was fortunate to have large resources to rely upon, and the primary exports were sufficiently diversified not to be trapped in the export instability problem (Roemer 1983).

15.6 Conclusion

From 1960 to 1975 Thailand pursued an import substitution policy. The shift toward export promotion was a long-felt need and materialized during the fourth plan (1976–80). Import substitution in retrospect is judged to have been a correct policy. Despite problems in the allocation of resources and income distribution, the growth of the economy has been rapid. The growth of the manufacturing sector depended on the two traditional sectors. Both traditional sectors—agriculture and minerals—had to create sufficient surpluses in terms of export revenues and raw materials to boost the industry through the fiscal linkage. The growth of the manufacturing sector relied upon several factors: the availability of low-wage labor, the abundance of resource-based inputs to be used in processing industries, the incentives given by the government, and the business acumen of the Chinese Thais during the early years of industrialization. Though the supply side is crucial, we have not overlooked the demand side. Both domestic and external demand stimulated the growth of the manufacturing sector. Even while the economy was undergoing the import substitution process, foreign demand was a major force leading to export promotion by the mid-1970s.

In the final analysis, Thailand can be an equally good example of both export-led growth and growth-led exports. At the macroeconomic level, the export-led notion explains how Thailand relies on export earnings to boost its growth. At the sectoral level, in a dynamic setting, it can be observed that growth of the traditional sectors facilitates the industrial development of the country.

References

Ajanant, J. 1984. Export promotion of processed food and textile products. UNIDO/UNDP/NESDB. March.

Ajanant, J., Supote Chunanuntathum, and Sorrayuth Meenaphant. 1984. Trade and industrialization in Thailand, phase I. International Development Research Centre, Ottawa, Canada. April.

Food and Agriculture Organization. 1984. *Yearbook of forest products*. Rome: FAO.

Maizels, A. 1968. *Exports and economic growth of developing countries*. Cambridge: Cambridge University Press.

Roemer, Michael. 1983. Primary exporting countries: Problems of poverty and plenty. Paper presented at the Arne Ryde Symposium on the Primary Sector in Economic Development, University of Lund, Sweden, August.

World Bank. 1982. *Thailand industrial and sector background report*. Washington, D.C.